

REMARKS

Claims 1-18 remain in the application with claims 1-3, 6-10, and 13-18 having been amended hereby.

Reconsideration is respectfully requested of the rejection of the claims under 35 USC 102(b), as being anticipated by Inanaga et al.

The present invention is intended to provide a processing method and apparatus for processing stored audio signals that might be reproduced in the course of playing of a video game, for example. The object of the present invention is to reduce the amount of signal processing that would be necessary when replaying the audio signals. Typically, some localization processing is performed on the reproduced audio signals to correspond to some control inputs, such as might be made by a joystick or other type of input device utilized by the player of the game. Fig. 1 shows that in previously known systems the audio signals are fed to the localization processing and for each signal a localization processor is typically required. On the other hand, as seen in Fig. 5, according to the present invention only two localization processors are required, because the audio signals are arranged in groups before being stored in the memory. This is represented in Fig. 4, as having four audio signals termed virtual sound sources being recorded or stored only as left and right stereo signals because of the grouping of T1 in one group and T4 in another group. As explained at page 18, the present invention performs sound source object preprocessing in which the sound

source signals are grouped and then the audio signal is converted into stereo audio signals. The sound source object has attributes of a sound source signal such as position information movement and localization position information. By providing the preprocessing in which the sound source signals are grouped, the amount of virtual localization processing can be reduced.

The claims have been amended hereby to emphasize the above-noted features of the present invention.

Inanaga et al. relates to a signal processing system in which it is intended to move the apparent source of the sound in relation to the movement of the head of the headphone user. The input signals are passed through convolution integrators and are mixed with each other to form the two-channel signals that are fed to the headphones. The convolution integrators obtain a placement information from the detector that detects the head motion and uses that information is used to address the memories that then produce outputs fed to the convolution integrators to reflect the location of the head, thereby changing the localization of the sound image.

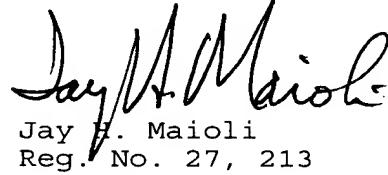
. It is respectfully submitted that Inanaga et al. is completely silent concerning the arranging of a plurality of sound source signals into groups based on attributes of the sound source signals and then storing the plurality of sound storage signals in a memory for subsequent read-out and processing based on control signals that have position information and movement information, as taught by the present invention and as recited in the amended claims.

Accordingly, by reason of the amendments made to the claims hereby, as well as the above remarks, it is respectfully submitted that a method and apparatus for processing an audio signal, as taught by the present invention and as recited in the amended claims, is neither shown nor suggested in the cited reference.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

COOPER & DUNHAM LLP



Jay H. Maioli  
Reg. No. 27, 213

JHM:gr